Generation of Stabilized Proteins by
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FIGURE 1.

pCB04WT phagemid plasmid
5069 bp

b-lactamase

CAT

gIII signal peptide

P lac

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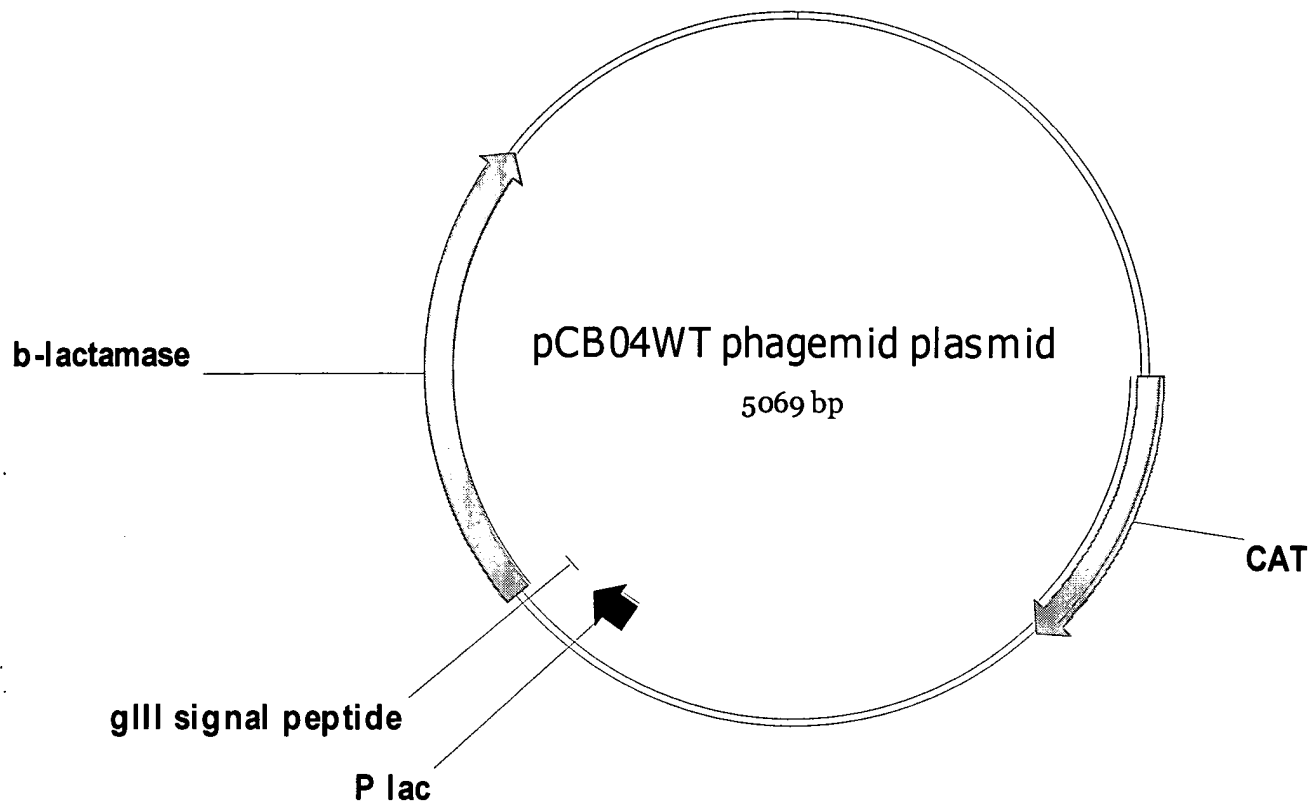Docket No. GC816
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FIGURE 2

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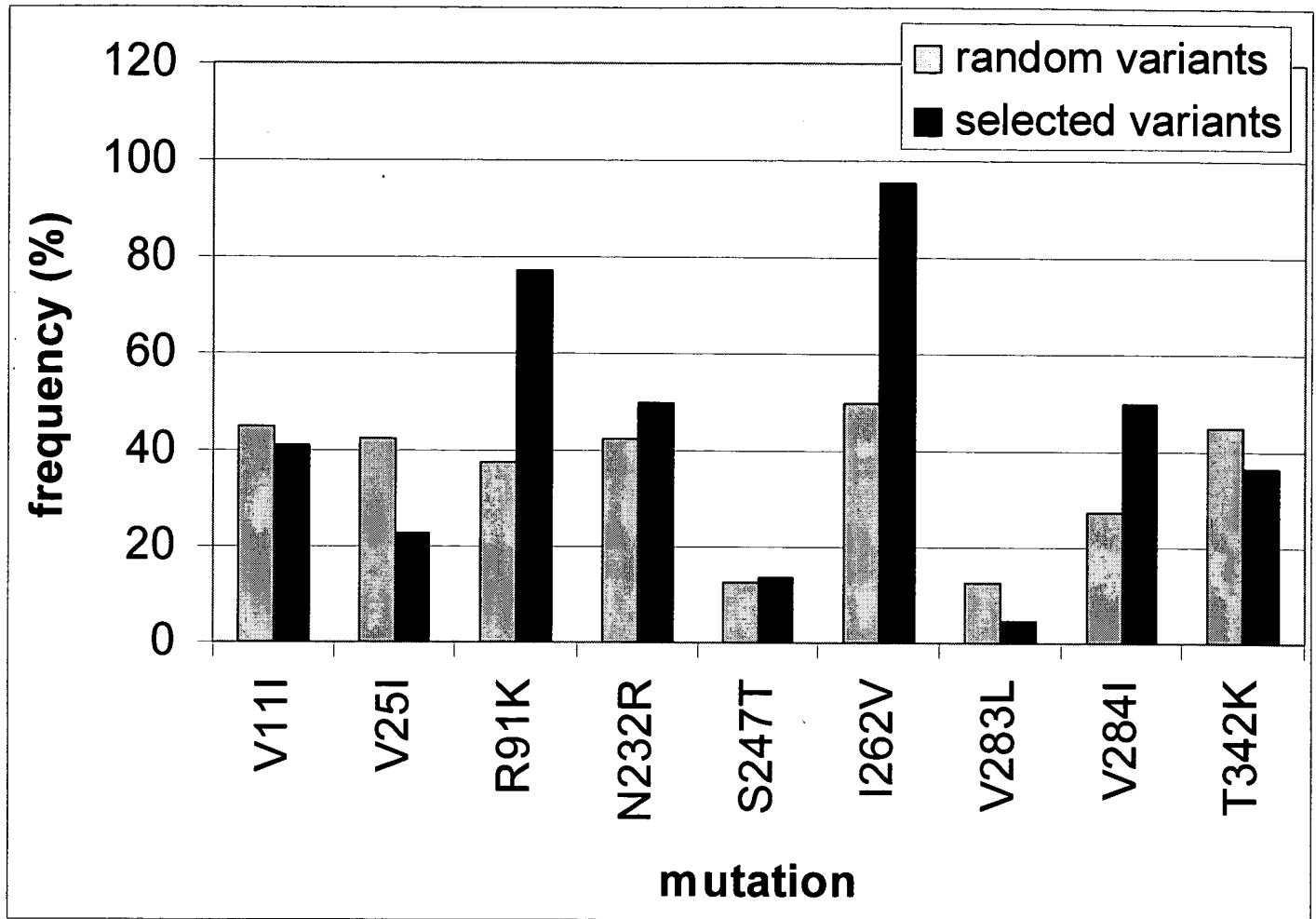ctttatatgttgccacctttatgtatgtattttctacgtttgctaacatactgcgtaataaggagtcttaataagaattcgccctatagt (SEQ ID NO:1)

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FIGURE 3.

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FIGURE 4.

aa change	parameter	# occur.	rank
T1A	0.100	0	
S4T	0.050	4	14
V11I	0.375	4	5
A13D	0.036	24	15
V25I	0.194	2	9
Y41F	-0.232	7	24
F43Y	-0.092	5	18
I65V	-0.219	20	22
R91K	0.367	2	6
Q95E	0.756	9	1
R105T	-0.223	2	23
M106L	-0.175	3	20
S130A	-0.102	14	19
A153S	0.669	10	2
Y170F	-0.256	4	25
A194S	0.141	4	12
A208P	-0.021	8	16
Q219E	-0.446	8	28
T225S	0.172	3	11
N226T	-0.198	8	21
V227A	-0.311	6	27
N232R	0.442	6	3
S247T	0.177	4	10
I262V	0.294	15	8
V283L	0.334	3	7
V284I	0.378	19	4
P295A	-0.299	5	26
I334L	-0.062	6	17
T342K	0.107	9	13
const. C	0.471		

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FIGURE 5.

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FIGURE 6.

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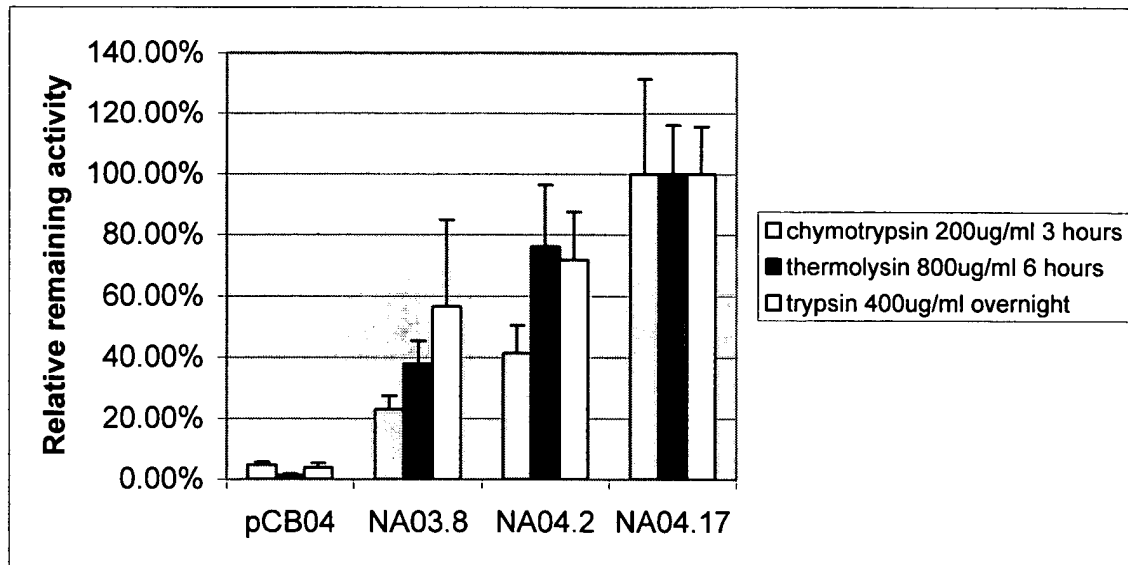Aehle et al.
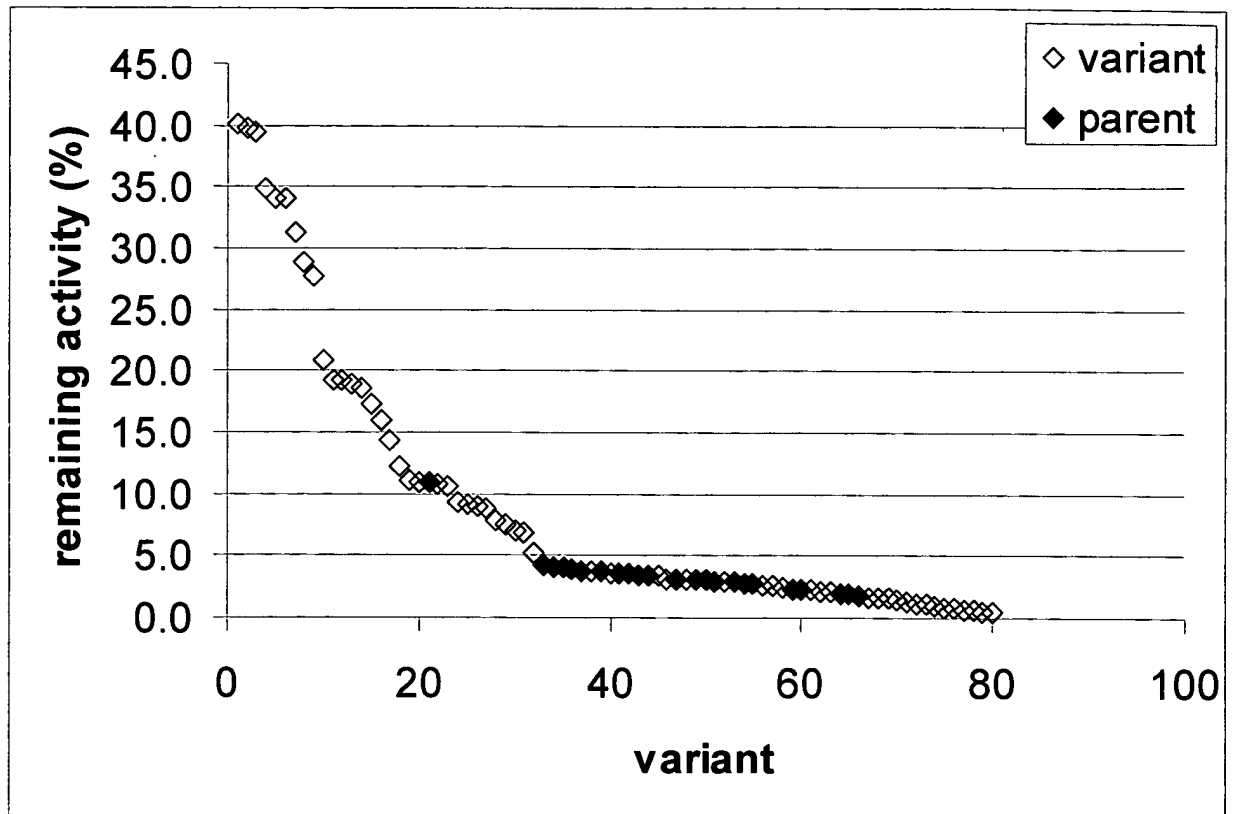SN# Unassigned
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FIGURE 7.

heavy chain:
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vss (SEQ ID NO:2)

linker:
Gggsgggsggggs (SEQ ID NO:3)

light chain:
Envltqspaimsaspgekvtitcsasssvsymhwfqqkpgtspklwiystsnlasgvparfsgsgsgtsyslttisrmeaedaatyycqqrssyplttfgagtklelkraat (SEQ
ID NO:4)

BLA:
LvsekqlaevvantitplmkaqsvpgmavaviyqgkphyytfgkadiaankpvtpqtlfelgsisktffgvlggdaiargeisIddavtrywpqltgkqwqgirmldiatytagglpl
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antsypnparveaayhilealq (SEQ ID NO:5)

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FIGURE 8.

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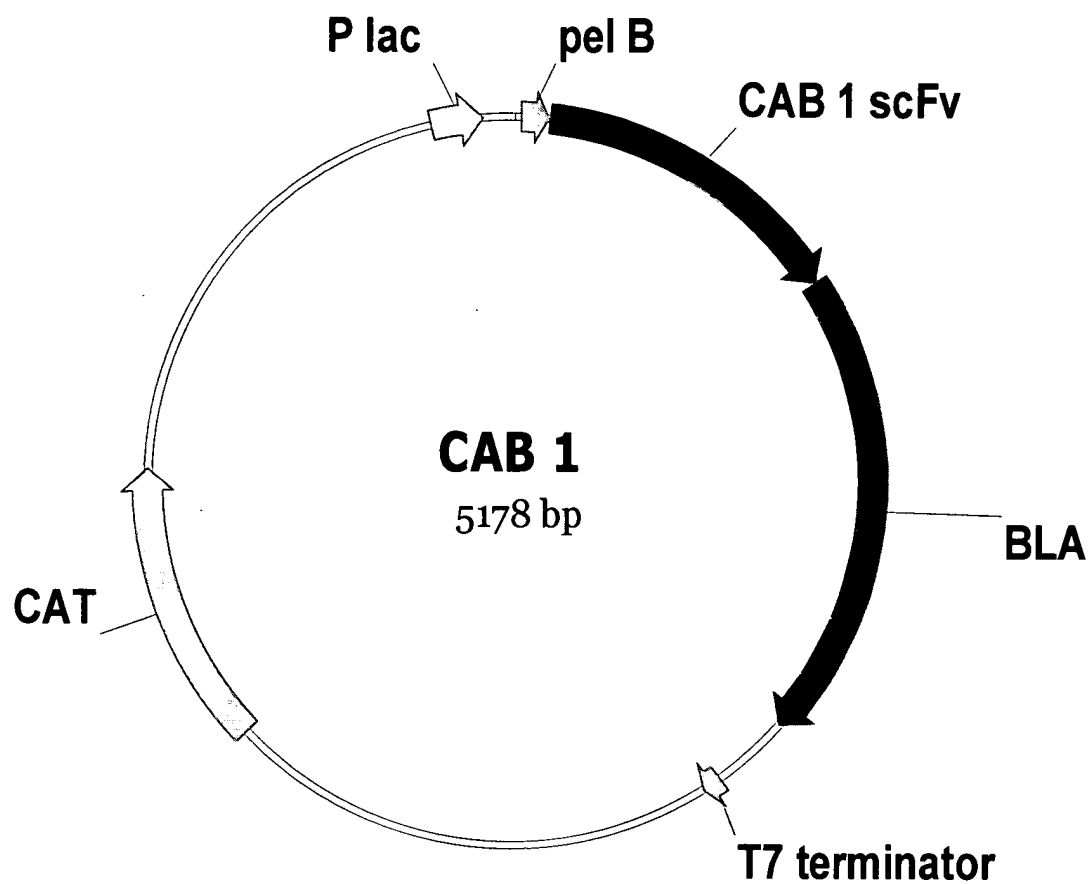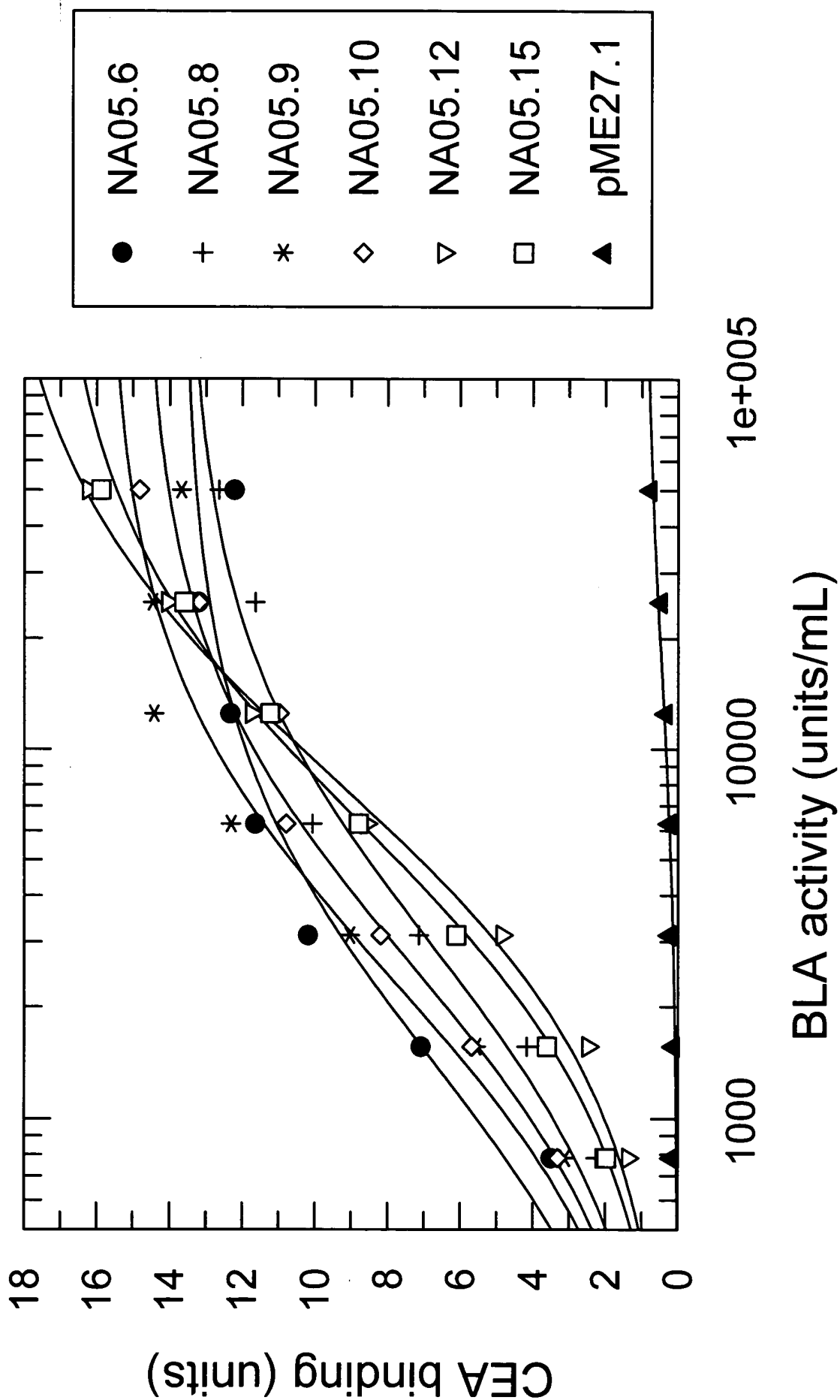SN# Unassigned
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FIGURE 9.

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agctttctagattaagg (SEQ ID NO:6)

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FIGURE 10.

```
                      1
                                                                80
Translation of CAB1   (1)   QVKLQQSGAELVRSGTSVKLSCTASGFNIKDSYMHWLRQGPEQGLEWIGWIDPENGDTEYAPKFQGKATFTTDTSSNTAY   (SEQ ID NO:6)
 human consensus      (1)   Q                TFS     V A G                           RF I R   K

                      81
                                                                160
Translation of CAB1   (81)  LQLSSLTSEDTAVYYCNEGTPTGPYYFDYWGQGTTVTVSSGGGGSGGGGSGGGGSENVLTQSPAIMSASPGEKVTITCSA  (SEQ ID NO:7)
 human consensus      (81)             AR                                           QS    P S V     QT

                      161
                                                                240
Translation of CAB1   (161) SSSVSYMHWFQQKPGTSPKLWIYSTSNLASGVPARFSGSGSGTSYSLTISRMEAEDAATYYCQQRSSYPLTFGAGTKLELKRAA  (SEQ ID NO:8)
 human consensus      (161)          Y            V         D    K   A     L    E D          G
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FIGURE 11.

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FIGURE 12.

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FIGURE 13.